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Agenda item 2

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## HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

### Report of the Working Group on Ballast Water convened during MEPC 44

#### SUMMARY

**Executive summary:** This report contains the results of considerations and discussions of the Ballast Water Working Group meeting convened during MEPC 44, taking into account instructions and comments of the Committee (MEPC 44/20, paragraphs 4.25 and 4.26). The Chairman of the Ballast Water Working Group presented an oral report reflecting the status of current work, as set out in the Committee's report (MEPC 44/20, paragraphs 4.27 - 4.42).

**Action to be taken:** Section 10

**Related documents:** MEPC 44/4, MEPC 44/20

## 1 INTRODUCTION

1.1 The Ballast Water Working Group met from 6 March to 10 March 2000 under the chairmanship of Mr. D. Paterson (Australia).

1.2 The Group was attended by representatives from the following countries: Argentina, Australia, Bahamas, Barbados, Brazil, Canada, China, Cyprus, Denmark, Egypt, Finland, France, Germany, Greece, Italy, Japan, Liberia, Malta, Netherlands, New Zealand, Norway, Panama, Philippines, Poland, Republic of Korea, Russian Federation, Singapore, South Africa, Spain, Sweden, Turkey, Ukraine, United Kingdom, United States, Hong Kong, China, and by observers from the following intergovernmental and non-governmental organisations: IOC, SPREP, ICS, ICFTU, BIMCO, IACS, OCIMF, FOEI, IAIN, INTERTANKO, IUCN, SIGTTO and IPTA.

## 2 INSTRUCTIONS FROM THE PLENARY

2.1 The Working Group was instructed to:

- . 1 give priority to key issues of "application of the arrangements" and development of an IMO approval process for alternative ballast water treatment techniques and consider all relevant documents, especially MEPC 44/4/1 (United States), MEPC 44/4/3 (Japan) and MEPC 44/4/5 (Norway) as well as the Chairman's four concept areas (see annex 2);

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- .2 consider the development of environmental standards;
- .3 consider a mechanism for assessment of standards and technologies, including the possible use of a group of experts;
- .4 consider sampling methods;
- .5 consider the key issues detailed in the report of the Working Group (MEPC 44/4, paragraph 2.21); and
- .6 consider other papers not introduced in plenary, including MEPC 44/16 by FOEI on potential environmental effects of ballast water discharges in relation to scrapping of ships.

2.2 The Working Group was also requested, if time permitted, to continue further development of the draft instrument using the framework contained in the report of the Working Group convened during MEPC 43 (MEPC 44/4) and to present an oral report to plenary. The Committee further advised the Working Group to refrain from drafting legal text for the Convention until the key issues of principle were addressed.

2.3 A list of documents considered by the Working Group during this meeting is set out in annex 1.

### **3 APPLICATION OF THE ARRANGEMENTS**

3.1 The Working Group considered as a matter of priority, key threshold questions regarding the "application of the ballast management arrangements", taking into account documents MEPC 44/4/1 (United States), MEPC 44/4/3 (Japan) and MEPC 44/4/5 (Norway), as well as the "four areas concept" regarding this key issue, introduced by the Committee's Chairman during this session, as set out in annex 2.

3.2 The Working Group recognized that this threshold question had been a stumbling block for some time and that until it was resolved, no real progress could be made towards the preparation of a draft Convention. It was therefore this subject that dominated the time and effort of the Working Group at this session.

3.3 After an introductory debate on the principles underlying the different approaches, the Working Group developed a practical two-tier approach to this complex subject. The two tiers provide, firstly, that certain baseline requirements shall be applied to all ships that carry ballast water on international voyages. Secondly, when these ships enter certain defined areas, they may be subject to further controls regarding the uptake and/or discharge of ballast water. These arrangements would provide for bilateral and regional agreements, thus permitting the introduction of harmonized arrangements across jurisdictions.

3.4 The majority of the Working Group agreed that in the first tier of this approach, ships covered by the Convention would be required to meet the baseline requirements for ballast water management at all times and all over the world. The Working Group agreed that these baseline requirements would include a requirement for a Ballast Water Management Plan, a requirement for a Ballast Water Management Record Book and an ability to manage ballast water and sediments in accordance with guidelines to be decided upon by IMO.

3.5 The Working Group also agreed that for practical reasons new ships might be subject to more stringent baseline requirements than existing ships. In this connection, the Working Group noted that in designing new ships, ballast water and sediment management and control options are already being considered in many cases. Recognizing the pending replacement of many ships of the world's fleet, the Working Group recommended that consideration be given at MEPC 45 to the possibility of developing a joint MEPC/MSC circular on this matter.

3.6 Whilst the Working Group considered whether new and existing ships should be subject to a primary ballast water management option, the general view was that technology was not sufficiently advanced at this stage to require all existing ships to exercise a primary ballast water management option, such as ballast water exchange, as part of the baseline requirements. However, some members of the Working Group did not agree with this view.

3.7 Regarding the second tier, the Working Group agreed that Contracting Parties had the right to designate areas in waters under their jurisdiction either as "ballast water discharge control areas" or as "ballast water uptake control areas". Countries should designate such areas in accordance with criteria established by IMO, and in accordance with international law. In these designated areas, countries could require further measures to those set out in the baseline requirements of tier one and notify IMO accordingly. Any additional requirements should reflect IMO approved standards and criteria which are to be developed for that purpose.

3.8 The Working Group was aware of the fact that there were two particularly important aspects to this approach: firstly, actions required of vessels would be minimized because these should be directly related to the circumstances of the specific marine environment in which vessels are taking up and/or discharging ballast water, i.e., would be based on risk; secondly, this approach provided for both flexibility and technological innovation.

3.9 Based on the discussions on this two-tiered approach to application, a drafting group was established to revise the draft convention text (MEPC 44/4, annex) incorporating this new concept into the framework. The revised framework is set out in annex 3.

3.10 The Working Group expressed its view that this two tier approach warranted serious consideration by all delegations. Its agreement would allow the Working Group to undertake concerted work at the next session in filling-in the framework, thus eventually leading to a completed draft Convention.

#### **4 DEVELOPMENT OF STANDARDS FOR BALLAST WATER MANAGEMENT AND CONTROL OPTIONS**

4.1 The Working Group recalled that at its previous meeting it had identified assessment and approval procedures for alternative ballast water management and control options as key issues which need resolution. On the basis of an informal draft text prepared intersessionally by several delegations under the lead of Australia, the Working Group reached a number of conclusions as described in the following paragraphs.

##### **"Best management practices" for the uptake of ballast water**

4.2 The Working Group agreed that ships that carry ballast water should make every effort to avoid the uptake of potentially harmful aquatic organisms and pathogens as well as sediments that may contain such organisms.

4.3 It was noted that, under certain circumstances and depending on its route, a ship might decide to take “potable water” as ballast which could be used for industrial or agricultural purposes. There might also be possibilities to uptake ballast water after it has undergone a process of inactivation, i.e. whereby any aquatic organisms and pathogens in the water and associated sediments have been killed, removed or otherwise inactivated.

4.4 Recalling section 9.1 of Resolution A.868(20) referring to “precautionary practices” for the uptake of ballast water, several members of the Working Group suggested that ballast water uptake should be minimized, where practicable, in areas and situations such as:

- .1 areas identified in connection with toxic algal blooms, outbreaks of known populations of harmful aquatic organisms and pathogens, sewage outfalls and dredging activity;
- .2 in darkness, when bottom-dwelling organisms may rise in the water column;
- .3 in very shallow water;
- .4 where a ship’s propeller may stir up sediments;
- .5 areas with naturally high levels of suspended sediments, e.g. river mouths and delta areas, or in locations that have been affected significantly by soil erosion from inland drainage; and
- .6 areas where harmful aquatic organisms or pathogens are known to occur.

4.5 Several members of the Working Group pointed out that some of the criteria and situations proposed above may at times be impracticable, e.g., requirements that ships should avoid taking ballast water in darkness or in river mouths and delta areas. It was also noted that a Master of a ship, having been made aware of the need to avoid uptake of organisms and pathogens with ballast water, would wherever practicable avoid such areas and situations, without these being set out in the form of requirements in an international convention.

4.6 The Working Group agreed that the above list provided a basis for further elaboration and consideration at the next session of the Working Group. Consideration should also be given regarding the possible need for differing approaches for new and existing ships.

#### **"Best management practices" during the discharge of ballast water**

4.7 Examples of best management practices in relation to ballast water discharge were considered, including the following principles:

- .1 a ship should avoid any unnecessary discharge of ballast water and associated sediments, may use “potable water” or “inactivated water” as ballast; and
- .2 where available, may decide to discharge ballast water that may contain harmful aquatic organisms and pathogens to a shore-based or mobile reception facility for inactivation prior to release to the marine environment.

4.8 The Working Group agreed that these principles should be developed further and that consideration should be given to the possible need for differing approaches for new and existing ships.

## **Management of sediments**

4.9 In the draft text mentioned in paragraph 4.1 above, it was suggested that routine cleaning of a ballast tank to remove sediments should only be carried out in mid-ocean or under controlled arrangements in port or dry dock, and in accordance with port State arrangements for the safe disposal of any cleaning wastes and sediments. During a detailed discussion of the issue of sediment disposal, the Working Group noted that under current prevailing circumstances the removal of sediments by a ship's crew in mid-ocean might be unsafe and would be time-consuming. New ship designs are being developed which would facilitate such practices in expectation of future ballast water management regulations. It was further agreed that future ship designs should incorporate approaches to minimise the uptake of sediments with ballast water as well as provisions which would facilitate the flushing of sediments from ballast tanks.

4.10 Other issues discussed included whether the Ballast Water Management Plan should include advice on the methodologies that are to be applied for the removal of sediments. Also, that sediments might contain organic and inorganic chemical pollutants which should be taken into account when considering their safe disposal.

4.11 The Working Group recommended that in light of the above discussion, MEPC should request MSC to consider requirements for new ship designs in this respect.

4.12 The Working Group agreed that the outcome of this discussion formed a useful basis for preparing more detailed management arrangements for sediments.

## **Management approaches to minimize risks**

4.13 The Working Group was informed of the status on inactivation projects that are being carried out in several MEPC member States. Whilst considerable progress has been achieved in the development of new technologies, methods that could be applied at uptake, en route and/or on discharge were not yet generally available.

4.14 The Working Group urged States and international associations to support and promote research activities with a view to developing and testing new ballast water treatment options, emphasizing that consideration be given to different approaches for new and existing ships.

## **Ballast water management options**

4.15 In addition to the empty/refill ballast exchange method which can achieve up to 98 percent efficiency, the Working Group recalled that ballast water exchange at sea using the flow through and dilution methods, which were 95 percent volumetric exchange methods, had been generally accepted and recommended as a management option. It stressed, however, that the efficacy of this method would need to be resolved further, taking into account vessel types, voyage patterns and other parameters. In this connection the Working Group noted that MSC had already given consideration to this matter; it also welcomed information that the United States was soon to embark on further detailed studies in this regard using different ship types.

## **5 SETTING STANDARDS**

5.1 In the light of discussions above on the efficacy of ballast water exchange methods at deep sea, the Working Group noted that the three generally accepted exchange methods - empty-refill; flow through; and dilution process - all achieved greater than 95 per cent volumetric exchange. However, it considered that new methods should not focus on the 95 per cent

volumetric exchange, but should be compared with the level of removal of organisms achieved through such exchanges. It was recognised that at this stage the level of alternative new technologies (“the bar height”) should not be set too high, and that a flexible approach to new technologies should be taken in order to allow for new methods that may be less effective but which can be used more regularly. One delegation noted that striving for perfection in setting standards at the outset would be counter-productive.

5.2 The Working Group further recognised that there was a need for ongoing international co-operation in research and development of methods. In this connection the Working Group was informed that results of research activities for invasive aquatic species, including ballast water management technologies and control methods, had been exchanged within the ICES/IOC/IMO Study Group on Ballast Water and Sediments. The study group has been renamed the “ICES/IOC/IMO Study Group on Ballast and Other Ship Vectors” which this year works by correspondence but will meet in 2001. Scientists from all major ballast water research groups in the world attended previous meetings of the Study Group.

5.3 In relation to the development of standards for new methods, the Working Group identified two approaches as follows:

- .1 the overall efficacy of inactivation of organisms within ballast water and sediments; and
- .2 the targeted approach involving species representative of a taxonomic category.

5.4 The Working Group stressed the need to identify an existing or to establish a new group of experts which should evaluate existing and new methods and elaborate a protocol or guidance for setting standards. It noted that GESAMP appeared to be a suitable group to assist in this matter and requested the Secretariat to provide further advice on this.

## **6 TECHNICAL EVALUATION OF OPTIONS**

6.1 The Working Group agreed that it was a matter for the country or organization proposing new management and control methods to provide information sufficient for the new methods to be evaluated.

6.2 In assessing the acceptability of a new ballast water management and control option, a list of criteria set out in the draft text presented by Australia in consultation with several delegations was reviewed in details. The Working Group agreed that these criteria should be simplified to reflect the following potential effects and aspects:

- .1 safety factors regarding the design, installation and operation of equipment;
- .2 effectiveness, i.e. the ability to kill, remove or otherwise inactivate infertile harmful aquatic organisms and pathogens;
- .3 consequential environmental impact; and
- .4 verification of the effectiveness of new ballast water management and control options.

## **7 EQUIVALENCY**

7.1 The Working Group agreed that any equivalency should take into account the relative limitations in the applicability of ballast water exchange (e.g., the flow-through method) versus the proposed treatment option. Such comparison and evaluations should be carried out by the small group on experts mentioned in paragraph 5.4 above. This should provide advice to MEPC with a view to advising it on proposed new ballast water treatment methods, their efficacy and any limitations.

7.2 One expert proposed that in developing new ship designs, provisions should be incorporated which would facilitate the sampling of ballast water and the installation of ballast water treatment equipment, e.g., centrifuges, hydrocyclones, heat exchangers, UV systems, etc. This was noted as warranting further consideration.

## **8 OTHER KEY ISSUES**

8.1 The Working Group identified a range of other key issues on which agreement needs to be reached before formulating draft text, including:

- .1 the standardisation of sampling techniques;
- .2 the responsibilities of Port, Flag and Coastal States;
- .3 the responsibility of the Organization;
- .4 the contents of the Ballast Water Management Plan and the Ballast Water Record Book;
- .5 the phasing in of existing vessels; and
- .6 the entry into force of provisions.

8.2 The Working Group further recognized that criteria for the development of standards and details for an approval mechanism as mentioned in sections above need to be established. One delegation emphasised the need to establish requirements outlining the relationship between this convention and complementary regional agreements on ballast water management.

### **Standardisation of sampling techniques**

8.3 The Working Group briefly discussed sampling methods, devices and their intercalibration and standardisation. Germany reported on its project, carried out with other countries of the European Union, which included the application of all ballast water sampling devices and associated equipment that have been used world-wide for sampling of ballast water. These were applied under controlled conditions by different teams, in the sampling of tanks of vessels en route, in harbours as well as in laboratory tanks. The results showed methodological discrepancies in every respect, demonstrating the urgent need for establishing standardised methodologies and equipment for worldwide application. These however would also depend on the purpose of sampling, e.g. whether target species would need to be identified, or all organisms in the ballast water. In addition it was noted that ballast water exchange at sea should not be considered as the 'non plus ultra' of ballast water management, in that, in a few cases, new species and communities have been detected **after** ballast water exchange at sea. What really

counted was the community of organisms in ballast tanks which could be discharged into the destination port.

8.4 The Working Group agreed that the guidance for the standardisation of sampling techniques including the conservation of samples and an outline of analytical methodologies should be developed by a small expert group, taking into account the results of previous exercises in this field, as mentioned above. The German delegation was requested to make the results of its study informally available to other members of the Ballast Water Working Group.

8.5 The Working Group agreed that flag State responsibilities in the new instrument should be compatible with those set out in other IMO instruments, particularly regarding certification, control measures, etc. In regard to operational requirements, the Working Group realised that the relevant port State would play a major role and have considerable responsibilities, particularly in cases where it declares a Ballast Water Management Area (within areas under its jurisdiction) or provides facilities for the treatment of ballast water, including sediments, in an environmentally safe manner. It should also ensure that any of its ballast water control measures would not result in adverse environmental impacts on neighbouring states.

8.6 The Working Group expressed its view that, besides port and flag States, a third category of States might play an important role; in establishing criteria relating to restrictions of ballast discharges from ships passing through waters under their jurisdiction on the way to a port State. Co-operation with neighbouring coastal States in developing bilateral or regional agreements should be encouraged and promoted.

### **Responsibility of the Organization**

8.7 The Working Group had a preliminary exchange of views on this matter, including the establishment of an information network, the administration of an expert group for an evaluation and approval mechanism, and the development of technical co-operation and assistance schemes for developing countries.

8.8 The Working Group will come back to this issue at subsequent sessions.

### **Contents of the Ballast Water Management Plan and the Ballast Water Record Book**

8.9 The Working Group noted that ICS in co-operation with INTERTANKO developed about two years ago a model Ballast Water Management Plan. They were invited to introduce their concept, including ongoing revisions, at the next session of the Working Group.

8.10 Regarding the Ballast Water Record Book, several delegations informed the Working Group of specific national requirements established with a view to controlling the history of ballast water on board ship. The Working Group will continue discussion of the matter at its next session.

### **Implementation issues including the phasing in of existing vessels and the application of provisions to new vessels**

8.11 The Working Group agreed in principle that new ships should be subject to provisions which would be partly different to those applicable to existing vessels.



### **Entry into force of conditions**

8.12 The Working Group agreed that this issue should be the subject of future consideration to be held after the content and outline of the Convention has taken more precise shape.

### **Other issues**

8.13 Other issues proposed for discussion at a later stage were training issues and the role of risk assessments.

## **9 FUTURE WORK PROGRAMME**

9.1 The Working Group discussed its future work programme, identifying key issues to be considered during forthcoming sessions as reflected in section 8 of this report.

9.2 Given the high priority to the finalization of an IMO regulatory arrangement for ballast water, the Working Group agreed that a Diplomatic Conference should take place as early as possible during the 2002/2003 biennium and suggested a timetable by which this could be achieved, as set out in Annex 4 to this report.

## **10 ACTION REQUESTED BY THE COMMITTEE**

The Committee is invited to:

- .1 approve this report in general as a basis for further consideration; and
- .2 consider the development of a joint MEPC/MSC circular emphasising the need for ballast water and sediment management options to be taken into account when developing and building new ships.

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## ANNEX 1

### DOCUMENTS CONSIDERED BY THE BALLAST WATER WORKING GROUP AT MEPC 44

MEPC 44/4		Report of the Working Group on Ballast Water convened during MEPC 43
MEPC 44/4/1	United States	Comments on the draft international convention for the control and management of ships' ballast water and sediments
MEPC 44/4/2	Argentina	Preventing pollution by harmful organisms in the ballast water of ships bound for Argentine ports in the River Plate Estuary
MEPC 44/4/3	Japan	Ballast water management and control procedures
MEPC 44/4/4	Brazil	Proposals to improve the work regarding the adoption of the Regulations and the enforcement of these measures
MEPC 44/4/5	Norway	Alternative principles for regulating ballast water management
MEPC 44/4/6	Greece	Harmful aquatic organisms in ballast water
MEPC 44/INF.2	Secretariat	Report on the Regional Scientific Workshop on Ballast Water Management and Control held on board m/v Georgij Ushakov in the Black Sea from 14 to 17 September 1999
MEPC 44/INF.9	Japan	Mixer pipe method as an alternative ballast water management technique
MEPC 44/INF.13	Argentina	Ordenanza No 7-98 - Prevención de la Contaminación con Organismos Acuáticos en el Lastre de los Buques Destinados a Puertos Argentinos de la Cuenca del Plata

MEPC 44/INF.19	Australia	Australia's ballast water management arrangements
MEPC 44/INF.20	Australia	Australia's ballast water exchange verification method
MEPC 44/INF.23	Secretariat	GEF/UNDP/IMO Project on Ballast Water Management (GLO/99/G31/A/1G/19)

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**ANNEX 2****THE "CHAIRMAN'S CONCEPT"**

The Chairman of the Committee summarized his proposal on "application provisions" to different areas as follows:

All ships above a certain tonnage on international voyages should have a Ballast Water Management Plan. There were four different areas where there may be varying requirements for ballast water management. These were as follows:

- .1 an area where no uptake of ballast water is permitted (e.g., during algal blooms, temporary or emergency areas);
- .2 an area where no ballast water management action is required (an explicit area, such as a semi-enclosed sea area where such action would have no beneficial effect);
- .3 an area where all ships are required to take some ballast water management action (ranging from simply communicating information about the ships ballast water to undertaking a full ballast water management or treatment option);
- .4 an area where ballast water management action is required by ships on some trades (e.g. vessels coming from distant international voyages).

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**ANNEX 3****DRAFT TEXT OF AN INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS****PREAMBLE**

THE PARTIES TO THE CONVENTION,

BEING CONSCIOUS of the need to control and manage discharge of ballast water and sediments from ship to prevent the spread of non-indigenous organisms in the marine environment,

RECALLING that the 1992 United Nations Conference on Environment and Development (UNCED) requested IMO to consider the adoption of appropriate rules on ballast water discharge,

RECALLING ALSO Principle 15 of the Rio Declaration on Environment and Development which calls for the application of a precautionary approach,

RECALLING FURTHER Article 196 of the United Nations Convention on the Law of the Sea (UNCLOS) provides that States shall take all measures necessary to prevent the international or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto,

RECALLING FURTHER decision IV/5 of the Conference of the Party to the Convention on Biological Diversity concerning the conservation and sustainable use of marine and coastal ecosystems,

RECOGNIZING that the proliferation of national measures to control ballast waters may cause unnecessary restrictions affecting shipping engaged in international trade,

RECOGNIZING FURTHER the need to establish international rules and regulations to control and manage ships' ballast water and sediments to minimize the transfer of harmful aquatic organisms and pathogens,

**[Preambular language highlighting concerns of ship safety to be developed]**

CONSIDERING that this objective could best be achieved by establishing an international Convention,

HAVE AGREED as follows:

## Article 1

### *Objective*

The objective of this Convention is minimize the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments.]

**Note:**           **to be further reviewed because of comment that potential hazards are not known in advance.**

## Article 2

### *General obligations under the Convention*

- 1       The Parties to this Convention undertake to give effect to the provisions of this Convention and the Annex thereto, which shall constitute an integral part of this Convention.
- 2       Unless expressly provided otherwise, a reference to this Convention constitutes at the same time a reference to the Annex.
- 3       The Parties undertake to promulgate all laws, decrees, orders and regulations and to take all other steps which may be necessary to give this Convention full and complete effect.

## Article 3

### *Application*

- 1       This Convention shall apply, except as expressly provided otherwise, to:
  - (a)   ships entitled to fly the flag of a Party to the Convention; and
  - (b)   ships not entitled to fly the flag of a Party but which operate under the authority of a Party.
- 2       This Convention shall not apply to:
  - (a)   ships not designed or constructed to carry ballast water;
  - (b)   ships of [a certain size and type];
  - (c)   [ships which operate exclusively in waters under the jurisdiction of one Party;] or
  - (d)   [ships which operate exclusively in waters under the jurisdiction of one Party and on the High Seas.]

**Note<sup>1</sup>:** **additional text may need to be developed to embrace additional concepts (MEPC 44).**

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1       MEPC 44



3 This Convention shall not apply to any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on governmental non-commercial service. However, each Party shall ensure by adoption of appropriate measures not impairing the operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with this Convention.

4 With respect to ships of non-Parties to the Convention, Parties shall apply the requirements of this Convention as may be necessary to ensure that no more favourable treatment is given to such ships, consistent with principles of international law.

**Note**<sup>1</sup>

**The drafting group recognized that, in accordance with the MARPOL and SOLAS systems of drafting, some exceptions to applicability should be contained in the Annex rather than in the Convention. Therefore, some parts of this article should be moved to Annex.**

**Article 4**

*Definitions*

For the purpose of this Convention, unless expressly provided otherwise:

- (a) "Regulations" means the regulations contained in the Annex to this Convention.
- (b) "Harmful Aquatic Organisms or Pathogens" means aquatic organisms or pathogens which, if introduced into a particular sea area including estuaries or fresh water courses, may create hazards to human health, harm living resources and aquatic life, damage amenities, impair biological diversity or interfere with other legitimate uses of such areas.
- (c) "Ship" means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms.
- (d) "Administration" means the Government of the State under whose authority the ship is operating. With respect to a ship entitled to fly a flag of any State, the Administration is the Government of that State. With respect to fixed or floating platforms engaged in exploration and exploitation of the sea-bed and subsoil thereof adjacent to the coast over which the coastal State exercises sovereign rights for the purposes of exploration and exploitation of their natural resources, the Administration is the Government for the coastal State concerned.
- (e) "Organization" means the International Maritime Organization.
- (f) "Ballast Water" means water with its suspended matter taken on board a ship to control trim, list, draught, stability or stresses of a ship.
- (g) "Sediments" means matter settled out of ballast water within a ship.
- (h) "Ballast Water Management" means mechanical, physical, chemical, biological or other processes to kill, remove, render infertile, or avoid the uptake or discharge of harmful aquatic organisms and pathogens within ballast water and sediments.

## **Article 5**

### *Violation*

**Note<sup>2</sup>: This article may need revision if it is to be consistent with the anti-fouling convention.**

1 Any violation of the requirements of this Convention shall be prohibited and sanctions shall be established under the law of the Administration of the ship concerned wherever the violation occurs. If the Administration is informed of such a violation and is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken as soon as possible, in accordance with its law.

2 Any violation of the requirements of this Convention within the jurisdiction of any Party to the Convention shall be prohibited and sanctions shall be established under the law of that Party. Whenever such a violation occurs, that Party shall either:

- (a) cause proceedings to be taken in accordance with its law; or
- (b) furnish to the Administration of the ship such information and evidence as may be in its possession that a violation has occurred.

3 Where information or evidence with respect to any violation of this Convention by a ship is furnished to the Administration of that ship, the Administration shall promptly inform the Party which has furnished the information or evidence, and the Organization, of the action taken.

4 The penalties specified under the law of a Party pursuant to the present article shall be adequate in severity to discourage violations of this Convention.

## **Article 6**

### *Detection of violations and enforcement of the Convention*

**Note: This article may need revision if it is to be consistent with the anti-fouling convention.**

1 Parties to the Convention shall co-operate in the detection of violations and the enforcement of the provisions of this Convention, using all appropriate and practicable measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence.

2 A ship to which this Convention applies may, in any port or offshore terminal of a Party, be subject to inspection by officers appointed or authorized by that Party for the purpose of verifying whether the ship has discharged any ballast water or sediments which contain harmful aquatic organisms or pathogens in violation of the provisions of the regulations. If an inspection indicates a violation of the Convention, a report shall be forwarded to the Administration for any appropriate action.

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<sup>2</sup> MEPC 43 decided in principle to align the instruments on TBT and Ballast Water

3 Any Party shall furnish to the Administration evidence, if any, that the ship has discharged ballast water or sediments which contain harmful aquatic organisms or pathogens in violation of the provisions of the regulations. If it is practicable to do so, the competent authority of the former Party shall notify the master of the ship of the alleged violation.

4 Upon receiving such evidence, the Administration so informed shall investigate the matter, and may request the other Party to furnish further or better evidence of the alleged contravention. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken in accordance with its law as soon as possible. The Administration shall promptly inform the Party which has reported the alleged violation, as well as the Organization, of the action taken.

5 A Party may also inspect a ship to which this Convention applies when it enters the ports or offshore terminals under its jurisdiction, if a request for an investigation is received from any Party together with sufficient evidence that the ship has discharged ballast water or sediments which contain harmful aquatic organisms or pathogens in any place. The report of such investigation shall be sent to the Party requesting it and to the Administration so that the appropriate action may be taken under this Convention.

#### **Article 7**

##### *Control with respect to requirements for ships' structure and equipment*

**Note: This article may need revision if it is to be consistent with the anti-fouling convention.**

1 Subject to the provisions of paragraph 2 of the present article, a certificate issued under the authority of a Party to the Convention in accordance with the provisions of the regulations shall be accepted by other Parties and regarded for all purposes covered by this Convention as having the same validity as a certificate issued by them.

2 A ship required to hold a certificate in accordance with the provisions of the regulation is subject, while in the ports or offshore terminals under the jurisdiction of a Party, to inspection by officers duly authorized by that Party. Any such inspection shall be limited to verifying that there is on board a valid certificate, unless there are clear grounds for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of that certificate. In that case, or if the ship does not carry a valid certificate, the Party carrying out the inspection shall take such steps as will ensure that the ship shall not sail until it can proceed to sea without presenting an unreasonable threat of harm to the marine ecosystem. That Party may, however, grant such a ship permission to leave the port or offshore terminal for the purpose of proceeding to the nearest appropriate repair yard available.

3 If a Party denies a foreign ship entry to the ports or offshore terminals under its jurisdiction or takes any action against such a ship for the reason that the ship does not comply with the provisions of this Convention, the Party shall immediately inform the consul or diplomatic representative of the Party whose flag the ship is entitled to fly, or if this is not possible, the Administration of the ship concerned. Before denying entry or taking such action the Party may request consultation with the Administration of the ship concerned. Information shall also be given to the Administration when a ship does not carry a valid certificate in accordance with the provisions of the regulations.

## **Article 8**

### *Control with respect to operational requirements*

**Note: This article may need revision if it is to be consistent with the anti-fouling convention.**

The Government of a Party shall appoint or authorize surveyors for the purpose of implementing the operational requirements contained in the regulations. The surveyors shall execute control in accordance with control procedures contained in the regulations.

[Alternative text:

1 A ship, when in a port or an offshore terminal under the jurisdiction of another Party to the Convention, is subject to inspection by officers duly authorized by such Party concerning operational requirements contained in the regulations, where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the control and management of ships' ballast water and sediments.

2 In the circumstances given in paragraph 1 above, the Party shall take such steps as will ensure that the ship shall not sail until the situation has been brought to order in accordance with the operational requirements contained in the regulations.]

**Note<sup>3</sup>: This article may need additional text regarding jurisdiction of surveyors.**

## **Article 9**

### *Undue delay to ships*

1 All possible efforts shall be made to avoid a ship being unduly detained or delayed under articles 5, 6, 7, and 8 of this Convention.

2 When a ship is unduly detained or delayed under articles 5, 6, 7, and 8 of this Convention, it shall be entitled to compensation for any loss or damage suffered.

**Note: This article may need revision if it is to be consistent with the anti-fouling convention.**

## **Article 10**

### *Promotion of technical co-operation*

The Parties to the Convention shall promote, in consultation with the Organization and other international bodies, support for those Parties which request technical assistance for:

- (a) the training of scientific and technical personnel;
- (b) the supply of necessary equipment for ballast water and sediment treatment and facilities for reception and monitoring;

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<sup>3</sup> MEPC 44

- (c) the facilitation of other measures and arrangements to control and manage ballast water and sediments which contains harmful aquatic organisms or pathogens; and
- (d) research;

preferably within the countries concerned, so furthering the aims and purposes of this Convention.

## **Article 11**

### *Regional co-operation*

In order to further the objectives of this Convention, Parties to the Convention with common interests to protect the marine environment in a given geographical area shall endeavour, taking into account characteristic regional features, to enhance regional co-operation including the conclusion of regional agreements consistent with this Convention with a view to minimizing the transfer of harmful aquatic organisms and pathogens in any part of the marine environment. Parties to the Convention shall seek to co-operate with the parties to regional agreements in order to develop harmonized procedures to be followed under such regional agreements.

**Note<sup>4</sup>: This Article may need further revision to address additional concepts regarding regional co-operation.**

## **Article 12**

### *Settlement of disputes*

Text to be developed

## **Article 13**

### *Other treaties and interpretation*

Text to be developed – based on MARPOL Article 9

## **Article 14**

### *Communication of information*

1 The Parties to the Convention shall communicate to the Organization:

**Note<sup>5</sup>: Text to be developed regarding:**

- communications on concepts of validation of environmental standards;
- communication of information regarding implementation of the Convention
- other concepts such as those contained in Annex I section D].

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<sup>4</sup> MEPC 44

<sup>5</sup> MEPC 44

2 The Organization shall notify Parties of the receipt of any communications under the present article and circulate to all Parties any information communicated to it.

## **Article 15**

*Signature, ratification, acceptance, approval and accession*

1 This Convention shall remain open for signature at the Headquarters of the Organisation from [ ] until [ ] and shall thereafter remain open for accession. States may become Parties to this Convention by:

- (a) signature without reservation as to ratification, acceptance or approval; or
- (b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
- (c) accession.

2 Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General of the Organization.

3 The Secretary-General of the Organization shall inform all States which have signed this Convention or acceded to it of any signature or of the deposit of any new instrument of ratification, acceptance, approval or accession and the date of its deposit.

## **Article 16**

*Entry into force*

Text to be developed

**[Note<sup>5</sup>: Provisions regarding transitional arrangements prior to the Convention coming into force should be considered.]**

## **Article 17**

*Amendments*

Text to be developed

## **Article 18**

*Denunciation*

1 This Convention may be denounced by any Parties to the Convention at any time after the expiry of five years from the date on which the Convention enters into force for that Party.

2 Denunciation shall be effected by notification in writing to the Secretary-General of the Organization who shall inform all the other Parties of any such notification received and of the date of its receipt as well as the date on which such denunciation takes effect.

3 A denunciation shall take effect 12 months after receipt of the notification of denunciation by the Secretary-General of the Organization or after the expiry of any other longer period which may be indicated in the notification.

## Article 19

### Deposit and registration

1 This Convention shall be deposited with the Secretary-General of the Organization who shall transmit certified true copies thereof to all States which have signed this Convention or acceded to it.

2 As soon as this Convention enters into force, the text shall be transmitted by the Secretary-General of the Organization to the Secretary-General of the United Nations for registration and publication, in accordance with Article 102 of the Charter of the United Nations.

## Article 20

## Languages

This Convention is established in a single copy in the English, French, Russian and Spanish languages, each text being equally authentic.

IN WITNESS WHEREOF the undersigned being duly authorized by their respective Governments for that purpose have signed this Convention.

DONE AT LONDON this [ ]

ANNEX

**REGULATIONS FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST  
WATER AND SEDIMENTS TO MINIMIZE THE TRANSFER OF HARMFUL  
AQUATIC ORGANISMS AND PATHOGENS**

SECTION A            GENERAL PROVISIONS

**Regulation A-1**

*Definitions*

- 1        “New ship” means (to be developed)
- 2        “Existing ship” means (to be developed)

Additional definitions to be developed as necessary

**Regulation A-2**

*General Applicability*

- (1) Except where expressly provided otherwise, Ballast Water Management shall be conducted in accordance with this Annex

**Note:**<sup>6</sup> The Working Group may wish to consider reference to the Appendices in this section, with language similar to Article 2(2).

**Regulation A-3**

*Exceptions*

- 1        The operational requirements of this Annex shall not apply to:
  - (a)    the uptake or discharge of ballast water and sediments necessary for the purpose of ensuring the safety of a ship or saving life at sea; or
  - (b)    the accidental discharge of ballast water and sediments resulting from damage to a ship or its equipment;
    - i       provided that all reasonable precautions have been taken before and after the occurrence of the damage or discovery of the discharge for the purpose of preventing or minimizing the discharge; and
    - ii      except if [the owner, company or] the master acted either with intent to cause damage or recklessly and with knowledge that [environmental] damage would probably result; or

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<sup>6</sup> MEPC 44



- (c) the uptake and discharge of ballast water and sediments when being used for the purpose of avoiding or minimizing specific pollution incidents [from a ship];
- (d) the discharge of ballast water and sediments from ships at the same location where the whole of that ballast water and sediments had been taken onboard.

## SECTION B APPLICABILITY TO SHIPS

### **Regulation B-1**

#### *Applicability*

This annex applies to all ships on international voyages that can carry ballast water

### **Regulation B-2**

#### *Exceptions (to applicability)*

Regulation B-1 does not apply to [ . . . ]

Text to be developed

- Notes*<sup>7</sup>:
- (1) **The drafting group recognized that, in accordance with the MARPOL and SOLAS systems of drafting, some exceptions to applicability should be contained in the Annex vice the Convention. Therefore, some parts of article 3 of the draft instrument should be moved to Annex.**
  - 2) **The Working Group should consider whether sections and regulations on applicability should be merged.**

## SECTION C GENERAL REQUIREMENTS FOR ALL SHIPS

### **Regulation C-1**

#### *Ballast water management plan*

1 Ships shall have on board a Ballast Water Management Plan approved by the Administration. The Ballast Water Management Plan shall provide safe and effective procedures regarding ballast water management to minimize the transfer of harmful aquatic organisms and pathogens. The Ballast Water Management Plan shall:

- (a) be specific to each ship;
- (b) detail safety procedures associated with any ballast management operations required by this Annex;

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<sup>7</sup> Source MEPC 44

- (c) be consistent with the model plan which appears in Appendix IV;
- (d) shall be drawn up in an official language of the State whose flag the ship is entitled to fly. If the text is not in English, French or Spanish, it shall include a translation into one of these languages.

**Note: To be revised in light of plenary and WG discussions at MEPC 44.**

**Regulation C-2**

*Ballast water record book*

Text to be developed

**Regulation C-3**

*Ballast water management for new ships*

Text to be developed

**Note: The discussion regarding applicability at MEPC 44 and in the Ballast Water Working Group at MEPC 44 should be considered when drafting this regulation. The concept of ability to manage Ballast Water and a primary ballast water management treatment process requires further consideration should specifically be addressed.**

**Regulation C-4**

*Ballast water management for existing ships*

Text to be developed

**Note: The discussion regarding applicability at MEPC 44 and in the Ballast Water Working Group at MEPC 44 should be considered when drafting this regulation. The concept of ability to manage Ballast Water should specifically be addressed.**

**Regulation C-5**

*Sediment management for new ships*

Text to be developed

**Regulation C-6**

*Sediment management for existing ships*

Text to be developed

**Regulation C-7**

*Best management practices*

All ships shall employ best environmental and technological management practices in accordance with [. . .]

**Note<sup>8</sup>: Best Management Practices to be communicated in some form to be determined by the working group, e.g. IMO Resolutions, Guidelines, Appendix to the Annex, etc., etc.**

## SECTION D SPECIAL REQUIREMENTS IN CERTAIN AREAS

### **Regulation D-1**

*Procedures and Criteria for the Designation of Control Areas*

Text to be developed. Will refer to appendices.

### **Regulation D-2**

*Ballast water discharge control areas*

Text to be developed (including temporary designations)

### **Regulation D-3**

*Ballast water loading [uptake] control areas*

Text to be developed (including temporary designations)

### **Regulation D-4**

*Regional agreements for ballast water discharge and loading*

Text to be developed

## SECTION E STANDARDS FOR BALLAST WATER MANAGEMENT

**Note<sup>9</sup>: The working group should consider whether the actual standards should appear in the Annex or in Appendices.**

### **Regulation E-1**

*Procedures and requirements for approval of standards*

Text to be developed

### **Regulation E-2**

*Standards for Ballast Water Management Options*

Text to be developed

**Note<sup>9</sup>: This section should consider technical evaluation and performance standards.**

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<sup>8</sup> MEPC 44

<sup>9</sup> MEPC 44

**Regulation E-3**

*Standards for verification*

Text to be developed

**Regulation E-4**

*Standards for sampling of ballast water*

Text to be developed

**Regulation E-5**

*Standards for sediment management*

Text to be developed

SECTION F                      SURVEY AND CERTIFICATION

**Note:** This section to be developed consistent with the final outcome of the anti-fouling convention

Text to be developed

SECTION G                      SHORE-BASED RECEPTION AND TREATMENT FACILITIES

- Note : may include:**
- **treated (clean) ballast water supply;**
  - **alternative ballast water discharge zones;**
  - **mobile reception facilities;**
  - **facility and treatment standards.**

Text to be developed

APPENDIX I                      CRITERIA FOR ESTABLISHING BALLAST WATER DISCHARGE CONTROL AREAS

APPENDIX II                      CRITERIA FOR ESTABLISHING BALLAST WATER LOADING [UPTAKE] CONTROL AREAS

[APPENDIX III                      CRITERIA FOR BEST BALLAST WATER MANAGEMENT PRACTICE]

APPENDIX IV                      MODEL BALLAST WATER MANAGEMENT PLAN

APPENDIX V                      MODEL BALLAST WATER MANAGEMENT CERTIFICATE

APPENDIX VI                      MODEL BALLAST WATER RECORD BOOK

APPENDIX VII                      STANDARDS

**Note<sup>10</sup>:** Placement to be considered further per section E.

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## ANNEX 4

### PROGRESSION TOWARDS A DIPLOMATIC CONFERENCE ON BALLAST WATER MANAGEMENT BEFORE THE END OF THE BIENNIUM 2002-03

#### Suggested timetable

Year	Meeting	Anticipated progress
2000	MEPC 44	Progress agreement on key issues and drafting of the Instrument.
	MEPC 45	Finalize majority of key issues and progress further drafting of the Instrument.
2001	MEPC 46	Finalize text of the draft Instrument. Refer to MSC and other relevant IMO bodies after the Meeting.
2002	MEPC 47	Consideration of comments received on the draft Instrument. Article by article consideration of the final draft text by MEPC.
	MEPC 48	Convene Diplomatic Conference in association with MEPC session.